

BTI-45 SEQUENCE LISTING

<110> Mor, Tsafrir
Hermona, Soreq
Charles, Arntzen
Hugh, Mason

<120> EXPRESSION OF RECOMBINANT HUMAN ACETYLCHOLINESTERASE IN TRANSGENIC TOMATOES

<130> BTI-45

<140> 09/810,861

<141> 2001-03-16

<150> 06/190,440

<151> 2000-03-17

<160> 5

<170> PatentIn version 3.0

<210> 1

<211> 29

<212> DNA

<213> Homo sapiens

<400> 1 gatatctgca gccatggcta ggcccccgc

29

<210> 2

<211> 31

<212> DNA

<213> Homo sapiens

<400> 2 cggtacctat caggtagcgc tgagcaattt g	31
<210> 3	
<21 1 > 5767	
<212> DNA	
<213> synthetic construct	
.400	
<400> 3 agcttgcatg cctgcaggtc aacatggtgg agcacgacac tctcgtctac tccaagaata	60
tcaaagatac agtctcagaa gaccagaggg ctattgagac ttttcaacaa agggtaatat	120
cgggaaacct cctcggattc cattgcccag ctatctgtca cttcatcgaa aggacagtag	180
aaaaggaaga tggcttctac aaatgccatc attgcgataa aggaaaggct atcgttcaag	240
aatgcctcta ccgacagtgg tcccaaagat ggacccccac ccacgaggaa catcgtggaa	300
aaagaagacg ttccaaccac gtcttcaaag caagtggatt gatgtgataa cttttcaaca	360
aagggtaata tcgggaaacc tcctcggatt ccattgccca gctatctgtc acttcatcga	420
aaggacagta gaaaaggaag atggcttcta caaatgccat cattgcgata aaggaaaggc	480
tatcgttcaa gaatgcctct accgacagtg gtcccaaaga tggaccccca cccacgagga	540
acatcgtgga aaaagaagac gttccaacca cgtcttcaaa gcaagtggat tgatgtgata	600
tctccactga cgtaagggat gacgcacaat cccactatcc ttcgcaagac ccttcctcta	660
tataaggaag ttcatttcat ttggagagga cctcgagaat taattctcaa cacaacatat	720
acaaaacaaa cgaatctcaa gcaatcaagc attctacttc tattgcagca atttaaatca	780
tttcttttaa agcaaaagca attttctgaa aattttcacc atttacgaac gatagccatg	840
gctccccgc agtgtctgct gcacacgcct tccctggctt ccccactcct tctcctc	900
ctctggctcc tgggtggagg agtgggggct gagggccggg aggatgcaga gctgctggtg	960
acggtgcgtg ggggccggct gcggggcatt cgcctgaaga cccccggggg ccctgtctct	1020
gctttcctgg gcatcccctt tgcggagcca cccatgggac cccgtcgctt tctgccaccg	1080
gagcccaagc agccttggtc aggggtggta gacgctacaa ccttccagag tgtctgctac	1140
caatatgtgg acaccctata cccaggtttt gagggcaccg agatgtggaa ccccaaccgt	1200
gagctgagcg aggactgcct gtacctcaac gtgtggacac catacccccg gcctacatcc	1260
cccacccctg tcctcgtctg gatctatggg ggtggcttct acagtggggc ctcctccttg	1320
gacgtgtacg atggccgctt cttggtacag gccgagagga ctgtgctggt gtccatgaac Page 2	1380

taccgggtgg	gagcctttgg	cttcctggcc	ctgccgggga	gccgagaggd	cccgggcaat	1440
gtgggtctcc	tggatcagag	gctggccctg	cagtgggtgc	aggagaacgt	ggcagccttc	1500
gggggtgacc	cgacatcagt	gacgctgttt	ggggagagcg	cgggagccgc	ctcggtgggc	1560
atgcacctgc	tgtccccgcc	cagccggggc	ctgttccaca	gggccgtgct	gcagagcggt	1620
gcccccaatg	gaccctgggc	cacggtgggc	atgggagagg	cccgtcgcag	ggccacgcag	1680
ctggcccacc	ttgtgggctg	tcctccaggc	ggcactggtg	ggaatgacac	agagctggta	1740
gcctgccttc	ggacacgacc	agcgcaggtc	ctggtgaacc	acgaatggca	cgtgctgcct	1800
caagaaagcg	tcttccggtt	ctccttcgtg	cctgtggtag	atggagactt	cctcagtgac	1860
accccagagg	ccctcatcaa	cgcgggagac	ttccacggcc	tgcaggtgct	ggtgggtgtg	1920
gtgaaggatg	agggctcgta	ttttctggtt	tacggggccc	caggcttcag	caaagacaac	1980
gagtctctca	tcagccgggc	cgagttcctg	gccggggtgc	gggtcggggt	tccccaggta	2040
agtgacctgg	cagccgaggc	tgtggtcctg	cattacacag	actggctgca	tcccgaggac	2100
ccggcacgcc	tgagggaggc	cctgagcgat	gtggtgggcg	accacaatgt	cgtgtgcccc	2160
gtggcccagc	tggctgggcg	actggctgcc	cagggtgccc	gggtctacgc	ctacgtcttt	2220
gaacaccgtg	cttccacgct	ctcctggccc	ctgtggatgg	gggtgcccca	cggctacgag.	2280
atcgagttca	tctttgggat	cccctggac	ccctctcgaa	actacacggc	agaggagaaa	2340
atcttcgccc	agcgactgat	gcgatactgg	gccaactttg	cccgcacagg	ggatcccaat	2400
gagccccgag	accccaaggc	cccacaatgg	ccccgtaca	cggcgggggc	tcagcagtac	2460
gttagtctgg	acctgcggcc	gctggaggtg	cggcgggggc	tgcgcgccca	ggcctgcgcc	2520
ttctggaacc	gcttcctccc	caaattgctc	agcgctacct	gataggtacc	gagctctctc	2580
aacaatctag	ctagagtttg	ctcctatcta	tatgtaataa	ggtatgctga	tatgcactat	2640
tcaaatagga	gcattagcta	tgtttgttaa	tgtcacttta	tgttatgtgg	gtaagtcacc	2700
taagacactc	cacgtaccta	cgttgttgtc	tcttaccggc	tttaataaat	cttctgccct	2760
tgttccatat	ttactaatta	tccctttctt	cactaaaaga	aaattgttat	cattaagtat	2820
tagtctttag	aacatatgag	gtctttaatt	gggtaggttt	tacaaattaa	ctaatataaa	2880
atgtcataaa a	atccacgtgg	ttaaacaaat	gcagaaaatc	gacgtcgtct	attggaccga	2940
cagttgctat	taatataatg	ggccaccata	gtagactgac	aaataaatta	cctgacaaca	3000
tcgtttcact a	aaataacaaa	cacaaaaagg	gagtgcattt	tccagggcat	ttttgtaata	3060
aaaaacagtt a	aaaagggagt	gcaatagaaa	tataggggtg	tggaaatagt	gatttgagca	3120
cgtcttgaag (cgaattcact	ggccgtcgtt	ttacaacgtc	gtgactggga	aaaccctggc	3180
gttacccaac 1	ttaatcgcct	tgcagcacat	cccctttcg	ccagctggcg	taatagcgaa	3240

			DIT.	-40		
					a atggcgcctg	3300
atgcggtatt	ttctccttac	gcatctgtg	ggtatttca	c accgcatato	gtgcactctc	3360
agtacaatct	gctctgatgo	cgcatagtta	agccagccc	c gacacccgco	aacacccgct	3420
gacgcgccct	gacgggcttg	tctgctcccg	gcatccgcti	t acagacaago	tgtgaccgtc	3480
tccgggagct	gcatgtgtca	ı gaggttttca	ccgtcatcad	cgaaacgcgc	gagacgaaag	3540
ggcctcgtga	tacgcctatt	tttataggtt	aatgtcatga	ı taataatggt	ttcttagacg	3600
tcaggtggca	cttttcgggg	aaatgtgcgc	ggaaccccta	tttgtttatt	tttctaaata	3660
cattcaaata	tgtatccgct	catgagacaa	taaccctgat	aaatgcttca	ataatattga	3720
aaaaggaaga	gtatgagtat	tcaacatttc	cgtgtcgccc	ttattccctt	ttttgcggca	3780
ttttgccttc	ctgtttttgc	tcacccagaa	acgctggtga	aagtaaaaga	tgctgaagat	3840
cagttgggtg	cacgagtggg	ttacatcgaa	ctggatctca	acagcggtaa	gatccttgag	3900
agttttcgcc	ccgaagaacg	ttttccaatg	atgagcactt	ttaaagttct	gctatgtggc	3960
gcggtattat	cccgtattga	cgccgggcaa	gagcaactcg	gtcgccgcat	acactattct	4020
cagaatgact	tggttgagta	ctcaccagtc	acagaaaagc	atcttacgga	tggcatgaca	4080
gtaagagaat	tatgcagtgc	tgccataacc	atgagtgata	acactgcggc	caacttactt	4140
ctgacaacga	tcggaggacc	gaaggagcta	accgcttttt	tgcacaacat	gggggatcat	4200
gtaactcgcc	ttgatcgttg	ggaaccggag	ctgaatgaag	ccataccaaa	cgacgagcgt	4260
gacaccacga	tgcctgtagc	aatggcaaca	acgttgcgca	aactattaac	tggcgaacta	4320
cttactctag	cttcccggca	acaattaata	gactggatgg	aggcggataa	agttgcagga	4380
ccacttctgc	gctcggccct	tccggctggc	tggtttattg	ctgataaatc	tggagccggt	4440
gagcgtgggt	ctcgcggtat	cattgcagca	ctggggccag	atggtaagcc	ctcccgtatc	4500
gtagttatct	acacgacggg	gagtcaggca	actatggatg	aacgaaatag	acagatcgct	4560
gagataggtg	cctcactgat	taagcattgg	taactgtcag	accaagttta	ctcatatata	4620
ctttagattg	atttaaaact	tcatttttaa	tttaaaagga	tctaggtgaa	gatccttttt	4680
gataatctca	tgaccaaaat	cccttaacgt	gagttttcgt	tccactgagc	gtcagacccc	4740
gtagaaaaga	tcaaaggatc	ttcttgagat	ccttttttc	tgcgcgtaat	ctgctgcttg	4800
caaacaaaaa	aaccaccgct	accagcggtg	gtttgtttgc	cggatcaaga	gctaccaact	4860
ctttttccga	aggtaactgg	cttcagcaga	gcgcagatac	caaatactgt	ccttctagtg	4920
tagccgtagt	taggccacca	cttcaagaac	tctgtagcac	cgcctacata	cctcgctctg	4980
ctaatcctgt	taccagtggc	tgctgccagt	ggcgataagt	cgtgtcttac	cgggttggac	5040
tcaagacgat	agttaccgga	taaggcgcag	cggtcgggct	gaacgggggg	ttcgtgcaca	5100
cagcccagct	tggagcgaac	gacctacacc	gaactgagat Page	acctacagcg 4	tgagctatga	5160

	gaaagcgcca	cgcttcccga	agggagaaag	gcggacaggt	atccggtaag	cggcagggtc	5220
	ggaacaggag	agcgcacgag	ggagcttcca	gggggaaacg	cctggtatct	ttatagtcct	5280
ı	gtcgggtttc	gccacctctg	acttgagcgt	cgatttttgt	gatgctcgtc	aggggggcgg	5340
1	agcctatgga	aaaacgccag	caacgcggcc	tttttacggt	tcctggcctt	ttgctggcct	5400
•	tttgctcaca	tgttctttcc	tgcgttatcc	cctgattctg	tggataaccg	tattaccgcc	5460
•	tttgagtgag	ctgataccgc	tcgccgcagc	cgaacgaccg	agcgcagcga	gtcagtgagc	5520
	gaggaagcgg	aagagcgccc	aatacgcaaa	ccgcctctcc	ccgcgcgttg	gccgattcat	5580
•	taatgcagct	ggcacgacag	gtttcccgac	tggaaagcgg	gcagtgagcg	caacgcaatt	5640
i	aatgtgagtt	agctcactca	ttaggcaccc	caggctttac	actttatgct	tccggctcgt	5700
ć	atgttgtgtg	gaattgtgag	cggataacaa	tttcacacag	gaaacagcta	tgaccatgat	5760
1	tacgcca						5767

<210> 4

<211> 14446

<212> DNA

<213> synthetic construct

<220>

<221> misc_feature

<222> (11862)..(12157)

<223> Identity of sequence residues 11862 to 12157 is unknown.

<400> 4 gaattaattc tcaacacaac atatacaaaa caaacgaatc tcaagcaatc aagcattcta 60 cttctattgc agcaatttaa atcatttctt ttaaagcaaa agcaattttc tgaaaatttt 120 caccatttac gaacgatagc catggctccc ccgcagtgtc tgctgcacac gccttccctg 180 gcttccccac tccttctct cctcctctgg ctcctgggtg gaggagtggg ggctgagggc 240 cgggaggatg cagagctgct ggtgacggtg cgtgggggcc ggctgcgggg cattcgcctg 300 aagacccccg ggggccctgt ctctgctttc ctgggcatcc cctttgcgga gccacccatg 360 ggaccccgtc gctttctgcc accggagccc aagcagcctt ggtcaggggt ggtagacgct 420 acaaccttcc agagtgtctg ctaccaatat gtggacaccc tatacccagg ttttgagggc 480

			BTI-			
					caacgtgtgg	540
acaccatac	cccggcctad	atccccaco	cctgtcctcg	, tctggatcta	tgggggtggc	600
ttctacagt	gggcctcctc	cttggacgtg	, tacgatggcc	gcttcttggt	acaggccgag	660
aggactgtg	tggtgtccat	gaactaccgg	gtgggagcct	ttggcttcct	ggccctgccg	720
gggagccgag	g aggccccggg	, caatgtgggt	ctcctggatc	agaggctggc	cctgcagtgg	780
gtgcaggaga	acgtggcago	cttcgggggt	gacccgacat	cagtgacgct	gtttggggag	840
agcgcgggag	ccgcctcggt	gggcatgcac	ctgctgtccc	cgcccagccg	gggcctgttc	900
cacagggccg	, tgctgcagag	cggtgcccc	aatggaccct	gggccacggt	gggcatggga	960
gaggcccgtc	gcagggccac	gcagctggcc	caccttgtgg	gctgtcctcc	aggcggcact	1020
ggtgggaatg	acacagagct	ggtagcctgc	cttcggacac	gaccagcgca	ggtcctggtg	1080
aaccacgaat	ggcacgtgct	gcctcaagaa	agcgtcttcc	ggttctcctt	cgtgcctgtg	1140
gtagatggag	acttcctcag	tgacacccca	gaggccctca	tcaacgcggg	agacttccac	1200
ggcctgcagg	tgctggtggg	tgtggtgaag	gatgagggct	cgtattttct	ggtttacggg	1260
gccccaggct	tcagcaaaga	caacgagtct	ctcatcagcc	gggccgagtt	cctggccggg	1320
gtgcgggtcg	gggttcccca	ggtaagtgac	ctggcagccg	aggctgtggt	cctgcattac	1380
acagactggc	tgcatcccga	ggacccggca	cgcctgaggg	aggccctgag	cgatgtggtg	1440
ggcgaccaca	atgtcgtgtg	ccccgtggcc	cagctggctg	ggcgactggc	tgcccagggt	1500
gcccgggtct	acgcctacgt	ctttgaacac	cgtgcttcca	cgctctcctg	gcccctgtgg	1560
atgggggtgc	cccacggcta	cgagatcgag	ttcatctttg	ggatccccct	ggacccctct	1620
cgaaactaca	cggcagagga	gaaaatcttc	gcccagcgac	tgatgcgata	ctgggccaac	1680
tttgcccgca	caggggatcc	caatgagccc	cgagacccca	aggccccaca	atggcccccg	1740
tacacggcgg	gggctcagca	gtacgttagt	ctggacctgc	ggccgctgga	ggtgcggcgg	1800
gggctgcgcg	cccaggcctg	cgccttctgg	aaccgcttcc	tccccaaatt	gctcagcgct	1860
acctgatagg	taccgagctc	tctcaacaat	ctagctagag	tttgctccta	tctatatgta	1920
ataaggtatg	ctgatatgca	ctattcaaat	aggagcatta	gctatgtttg	ttaatgtcac	1980
tttatgttat	gtgggtaagt	cacctaagac	actccacgta	cctacgttgt	tgtctcttac	2040
cggctttaat	aaatcttctg	cccttgttcc	atatttacta	attatccctt	tcttcactaa	2100
aagaaaattg	ttatcattaa	gtattagtct	ttagaacata	tgaggtcttt	aattgggtag	2160
gttttacaaa	ttaactaata	taaaatgtca	taaaatccac	gtggttaaac	aaatgcagaa	2220
aatcgacgtc	gtctattgga	ccgacagttg	ctattaatat	aatgggccac	catagtagac	2280
tgacaaataa	attacctgac	aacatcgttt	cactaaataa	caaacacaaa	aagggagtgc	2340
attttccagg	gcatttttgt	aataaaaaac	agttaaaagg		gaaatatagg	2400
			Page	ь		

ggtgtggaa	a tagtgattt	g agcacgtct	t gaagcgaat	t cgagatcggd	cgcggctgag	2460
tggctcctt	c aatcgttgc	g gttctgtca	g ttccaaacg	t aaaacggctt	gtcccgcgtc	2520
atcggcggg	g gtcataacg	t gactccctta	a attctccgc1	t catgatcaga	ttgtcgtttc	2580
ccgccttca	g tttaaacta [.]	t cagtgtttga	a caggatatat	tggcgggtaa	acctaagaga	2640
					tatccgttcg	2700
					ccagcgagac	2760
			•		gtgcgcaggc	2820
	c aacgcataca					2880
	a tcgcgcagga					2940
	g acagtgctca					3000
	ctccgctggt					3060
	a tgtttatcag					3120
	g ccgccctgga					3180
	g aacggttggg					3240
	tcgacgcact					3300
	acgacgactg					3360
	cctaccgcga					3420
	cggccgacgc					3480
	atgcgctgat					3540
	acagcgatgc					3600
	gggccgcgat					3660
	cggtgattgt					3720
	gaaagggtga					3780
	catgtagaca					3840
	gggctttttc					3900
	ggccttctgg					3960
	gcggcgagcg					4020
	taacgcagga					4080
	cgcgttgctg					4140
	ctcaagtcag					
	aagctccctc					4200
		J - J - J - C - C - C - C - C - C - C -	ge ceegae	ceryceyett i	accyyatacc	4260

caaagggttc gtgtagactt tccttggtgt atccaacggc gtcagccggg caggataggt 444 gaagtaggcc cacccgcgag cgggtgttcc ttcttcactg tcccttattc gcacctggcg 450 gtgctcaacg ggaatcctgc tctgcgaggc tggccggcta ccgccggcgt aacagatagg 456 ggcaagcgga tggctgatga aacaaagcca accaggaagg gcagccacc tatcaaggtg 462 ggcaagcgga tggctgatga aacaaagca accaggaagg gcagccacc tatcaaggtg 462 tactgccttc cagacgaacg aagagcgatt gaggaaaaagg cggcggcgg cggcatgaagc ctgtcggcct acctgctggc cgtcggcaag ggctacaaaa tcacgggcgg cggcctgctg 480 gagcacgtcc gcgagctggc ccgcatcaat ggcgactgg gtgatgccac gatcctcggc ctgctgggca agatcgaaga gaagcagga ggcttggca aggtcatgat gggcgtggt 492 cgcccgaggg cagaagcatg actttttag ccgctaaaaa ggccgggggg tggcggtgg tggcgcggtat 498 cgcccgaggg cagaagcatg actttttag ccgctaaaaa ggccgggggg tggcggtgg tggcgcggtg cgcccgaggg cagaagcaa gaccgaggc ctttgcga ggccgggggg tggtgaagat tgccaagcac gtccccatgc gctcatcaa gaagaaggac ttcgcggag tggtgaagat tgccaagcac gtccccatgc gctcatcaa gaagaggac gccaacagg cgcgggggg tggtgaagat catcaccgac gagcaaggca agaccgagc cttgcgaac gccaacagg cggtgaagc cgtggcggg gctggcggc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc cgtgtgcgag acaccgcggc cgccgggtt gtggatacct cgcggaaac ttggcccca 522 ctgacagaatg aggggcgga tttcacggcg gaggggcga ctcacccggg gggggttga 528 cagatgaggg gcaggctcga tttcggcgg cgactggag ctggccaac tcgcaaacg gcgaaacacg ctgatttac gcgagttcc cacagatga gtggacaagc ctggggataa 540 gtgccctgg gtattgacac ttgaggggc gacactactga cagatgaggg gcggatact 546 gcgccctgg gtattgacac ttgaggggcg cgactactga cagatgaggg gcggatact tgacacttga ggggcagac gcgacagaa agggggggcg ccccctttc cgaaccccc cggcccgcta acgcgggcc cccaacccc agggggtcg ccccctttc cgaaccccc cggcccctgt cgcgtaccc gcacacccaa aaatggaag gcggcagaac cttggcagac gggaagacggg ggatgcccatt taaaccaga gcggaagcc cttggcaga ggcggaaccatt taaaccaga gcggcggaaccatt taaaccaga gcggaaccatt taaaccaga gcggaaccaga gcggaaccaga gcggaaccaga gcggcagaccagaa gcggcggaaccagaa gcggcggaaccagaa gcggcggaaccagaa gcggcggaaccagaaccaga gcggaaccagaa gcggaaccagaa gaggaggac ggcagaaccagaa gaggaagaa acccagacgaa gcggaaccagaa gaggaagaa gaggaagaacaaccaa gcggaaccaat	tgtccgcctt	tctcccttcg	ggaagcgtgg	cgcttttccg	ctgcataacc	ctgcttcggg	4320
gaagtaggcc cacccgcgag cgggtgttcc ttcttcactg tcccttattc gcacctggcg 450 gtgtctcaacg ggaatcctgc tctgcgaggc tggccggcta ccgccggcgt aacagatgag 450 ggcaagcgga tggctgatga aacaagcca accaggaagg gcagccacc tatcaagggg 460 aggcaagcgga tggctgatga aacaagcgat gaggaaaagg cggcggggg cggcatgagc 460 ctgtcggcct acctgctggc cgtcggccag ggctacaaaa tcacggggcg cggcatgagc 460 aaactctggc cgcagcagg ccgcaccag ggctacaaaa tcacggggcg cggcctgctg 480 aaactctggc tcaccgaga cccgcgcacg ggcggttcg gtgatgccac gatcctcgc 480 ctgctgggaa agatcgaaga gaagcaggac ggcgggttcg gggatgcaa ggccggggg cggcctgggt 492 ctgctgggaaggacaggac aaactctggc caccagga gagcttggaa aggtcatgat gggggggg cggccggggg cggcctggat 492 cgcccgagg cagagccatg actttttag ccgctaaaac ggccgggggg tgggggggg tggccggggg cgcccggagg cacacagag gaccagaga gaccagaga gaccagaga gaccagaga gaccagaga gccggagggg ttgggggggggg	gtcattatag	g cgatttttc	ggtatatcca	tcctttttcg	cacgatatac	aggattttgc	4380
gtgctcaacg ggaatcctgc tctgcgaggc tggccggcta ccgccggct aacagatgag 456 ggcaagccga tggctgatga aaccaagcca accaggaagg gcagcccacc tatcaaggtg 462 tactgccttc cagacgaacg aagagcgatt gaggaaaagg cggcgggcg cggcatgagc 468 ctgtcggcct acctgctggc cgtcggccag ggctacaaaa tcacggggcg cggcatgagc 468 aaactctggc taccgagcgg ccgcatcaat ggcgacctgg gcgcctggg cggcctgctg 480 aaactctggc tcaccgaaga gaagcagac ggcggctgg ggatgccac gatcctcgc 486 ctgctggcga agatcgaaga gaagcaggac ggcggttcg gtgatgccac gatcctcgc 486 ctgctggcga agatcgaaga gaagcaggac gagcttggca aggtcatgat gggcgtggt 492 cgcccgaggg cagagccatg actttttag ccgctaaaac ggccgggggg tgggcgtggt 492 cgcccgaggg cagagccatg actttttag ccgctaaaac ggccgggggg tgggtggat 498 tgccaagcac gtccccatgc gctccatcaa gaagagcgac ttcgcggagc tgggtgaagta 504 catcaccgac gagcaaggca agaccgagcg ctttgggac gctcaccggg ctggttgacc 510 catcaccgac gagcaaggca gccgagggc ctttgggac gccagaaacg ccgtcgaagc 516 cgcggtgggg acaccggggc gccgggggt gtgggggg cgggggggggg	caaagggtto	gtgtagactt	tccttggtgt	atccaacggc	gtcagccggg	caggataggt	4440
99caagcgga tggctgatga aaccaagcca accaggaagg gcagcccacc tatcaaggtg tactgccttc cagacgaacg aagacgatt gaggaaaagg cggcggggc cggcatgaagc ctgtctgggcct acctgctggc cgtcggccag ggctacaaaa tcacggggcg cggcatgaagc ctgtctgggcct acctgctggc cgcgcatcaat ggcgactgg gcgcctggg cggcctgctg 480 aaactctggc tcaccgaag cccgccacg gcgcggttcg gtgatgccac gatcctcgcc 486 ctgctgggaa agatcgaaga gaagcaggac gagcttggca aggtcatgat gggcgtggt 492 cgcccgaggg cagaccatg actttttag ccgctaaaac ggccgggggg tgggggggg tggcgcgagta tggccaagaa gaccaagaa gaaccaaga gaccaagaa ttcgcggag tggtgaagta 504 catcaccgac gccccatga gcccatcaa gaagagcgac ttcgcggag tggtgaagta 504 catcaccgac gaccatga agaccgagc ctttgcgac gctcaccggg ctggttgccc 510 tcgccgctgg gcgggggc gctcatgac gccggcgggg cgcggaaaac ggggggggg gcgggggggg	gaagtaggco	cacccgcgag	cgggtgttcc	ttcttcactg	tcccttattc	gcacctggcg	4500
tactgccttc cagacgaacg aagagcgatt gaggaaaagg cggcggcgc cggcatgagc ctgtcggcct acctgctggc cgtcggccag ggctacaaaa tcacgggcgt cgtggactat 474 gagcacgtcc gcgagctggc ccgcatcaat ggcgacctgg gccgcctggg cggcctgctg 480 aaactctggc tcaccgacga cccgcgcacg gcgcggttcg gtgatgccac gatcctcgcc 486 ctgccggaa agatcgaaga gaagcaggac gagcttggca aggtcatgat gggcgggtgc 492 cgcccgaggg cagagccatg acttittag ccgctaaaac ggccgggggg tgcgcggtgat 492 cgccgaagac gacccatga gaccaagac gccccaagac gccccatgac gccccatgac gccccataca gaagaggac ttcgcggagc tggtgaagta 504 catcaccgac gaccaagaca agaccgagc ctttgcgac gctcaccggg ctggtgaagta 504 catcaccgac gagcaaggca gaccagacg cctttgcgac gccagaaacg ccgtcgaagc 516 cgcggtgggag acaccgcggc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 516 cggtggcgaa acaccgcggc cgccggcgtt gaggatacct cgcgaaaacg ccgtcgaagc 528 cagaatgaggg gcaggctcga tttcggcgg gcagaaacg ctggcggaaaacg ctggcaaaacg ctgacaagac gcgaaaacg ctgacaagac gcgaaaacg ctgacaagac gcgaaaacg gcgaaaacg ctgacaagac gcgaaaacg gcgaaaacg ctgacaagac gcgaaaacg ctgacaagac gcgaaaacg gcgaaaacg ctgacaagac gcgaaaacg gcgaaaacg gcgaaaacg ctgacagac gcgaaaacg gaggagggg gaggaaacg gcgaaacgg gcgaaaacg gggaaaacg gagaaaacg gagaaaacg gagaaaacg gagaaaacg gagaaaacg gagaaaacg gagagggg gaggaggac gccactgg ggcgaacct gaacctgga aggggggg gaggagaacg ggcgaacct gaacctggc gacactgga gaggggggg gaggagaacg ggcggcctggaaccg gacacggaa agggggggg ggcggaaccatt taaaaccaa aacctgtctt ttaacctgct tttaaaccaa tattaaaa ccttgtttt aaccagggct 582 cggccccggaacggc gcggacggaacgga gaggagggggggg	gtgctcaacg	ggaatcctgc	tctgcgaggc	tggccggcta	ccgccggcgt	aacagatgag	4560
ctgtcggcct acctgctggc cgctggccag ggctacaaaa tcacgggcgt cgtggactat 474 gagcacgtcc gcgagctggc ccgcatcaat ggcgacctgg gccgctgggg cggcctgctg 486 aaactctggc tcaccgacga cccgcgcacg gcgcggttcg gtgatgccac gatcctcgcc 486 ctgctggcga agatcgaaga gaagcaggac gagcttggca aggtcatgat gggcgggtct 492 cgcccgaggg cagagccatg actttttag ccgctaaaac ggccgggggg tgcgcggtgat 498 tgccaagcac gtccccatgc gctccatcaa gaagagcgac ttcgcggagc tggtgaagta 504 catcaccgac gagcaaggca agaccgaggc ctttgcgac gctcaccggg ctggtgaagta 504 catcaccgac gagcaaggca agaccgaggc ctttgcgac gctcaccggg ctggtgccc 510 cgccgctgg gctggcggc gtctatggcc ctgcaaacg gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 528 cagatgaggg gagggcggac gttgacactt gaggggccga ctcacccggc gcggggttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccaaaccg 534 gcgaaaacgc ctgatttac gcgagttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgg gtattgacac ttgaggggcg cgactactga cagatgagg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gaggggcga cccatttgaca tttgaggggc 528 tgtccacagg cagaaaatcc agcattgca aggggttcc cccatttgaca tttgaggggc 528 tgtccacagg cagaaaatcc agcattgca aggggttcc cccgttttc ggccaccgct 588 accctgtctt ttaacctgct tttaaaccaa tattaaaa ccttgtttt aaccagggct 564 gcgccctgtg cgcggaccg cgcacgcca agggggtgc ccccctctct cgaaccctcc 570 cggcccgcta acgcgggcc cccatcccc caggggctgc gcccctctgc ggcgaacgg 582 cggactgcta acgcgggcc gccggcacc ggaaggcg gccggcatct 564 gggatgggcga tcagcccaga gccggacgcc ggaaggcgg gccggatcg ggccggcatct 588 ggatgggcga tcagcccgag gccggcagcc ggaaggcgg gccggatcgg ggccggcat 588 ggatgggcga tcagcccgag gccggcagcc ggaaggcgg gccggatcgg ggccggcat 588 ggatgggcga tcagccgag gccggcagcc ggaaggcgg gccggatcgg ggccggcat 588 ggatgggcga tcagccgag gccggacgc ggaaggacgg gccggaacggg ggcggcatct 588 ggatggggcg tcagcgggg gccggacg gccggacggg ggcggacggac	ggcaagcgga	tggctgatga	aaccaagcca	accaggaagg	gcagcccacc	tatcaaggtg	4620
gagcacgtcc gcgagctggc ccgcatcaat ggcgacctggg gcggcctgggg gagcctgctgg aaactctggc tcaccgacga cccgcgacag gcgcggttcg gtgatgccac gatcctcgcc 4866 ctgctggga agatcgaaga gaagcaggac gagcttggca aggtcatgat gggcgtggtc 492 cgcccgaggg cagagccatg actttttag ccgctaaaac ggccgggggg tgggcggtat 498 tgccaagcac gtccccatgc gctccatcaa gaagagcgac ttcgcggagg tggtgaagta 504 catcaccgac gagcaaggca agaccgagcg cctttgcgac gctcaccggg ctggtgaagta 504 catcaccgac gagcaaggca agaccgagcg ctttgcgac gccagaaacg ccgtcgaagc 516 cggtgtgcgg gctggcggc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc gttgacactt gaggggccga ctcaccggg gcggcggtga 528 cagaatgaggg gcaggcgac gttgacactt gaggggccga ctcaccggg gcggggttga 528 cagatgaggg gcaggctcga tttcggcgg gaggttccc cacagatgagg gcggaaaacgc ctgatttac gcgagtttcc cacagatgat gtggacaagc ctgggggata 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga gagggggcga cctattgaca tttgagggg cggcaatct 546 tgacacttga gggggagagat gctgacagat gagggggcga cctattgaca tttgaggggc 522 tgtcaccagg cagaaaatcc agcattgca aggggggcga cctattgaca tttgaggggc 552 tgtcaccagg cagaaaatcc agcattgca aggggggcga ccccctttt ggacaccgc 558 aacctgtctt ttaacctgct tttaaaccaa tatttataaa ccttgtttt aaccagggct 546 gcgcccgcta acgcggggcc gcgcagccc ggaagggggcga ccccccctct cgaaccctcc 570 cggcccgcta acgcgggccc cccatccccc caggggggggca cccccctct cgaaccctcc 570 cggcccgcta acgcgggcc cccatccccc cagggggctg gccccctggg ggcagtaacg 582 cccccccca aaatggcag gccggaacc cttaccccc aaaatggggg gccggaaccg 582 ccccccccaa aaatggcag gccggaacgcc ggaagcattg gcgggatggg ggcggaacgg 582 cccacccca aaatggcag gccggaaccat cttgccattg ccgggatggg ggcggaacgg 582 cccacccca aaatggagg gccggaaccat cccaccaca aaatggcag gccggaaccacca gaggggggg gaggagga ccgggaaccacacca aaatggagg gccggaaccacacca gcgaaccaca gcggaaccacacaca	tactgccttc	cagacgaacg	aagagcgatt	gaggaaaagg	cggcggcggc	cggcatgagc	4680
aaactctggc tcaccgacga cccgcgacg gcgcggttcg gtgatgccac gatcctcgcc ctgctgggcg agatcgaaga gaagcaggac gagcttggca aggtcatgat gggcgtggtc 492 cgcccgaggg cagagccatg actttttag ccgctaaaac ggccgggggg tgcgcgtgat 498 tgccaagcac gtccccatgc gctccatcaa gaagagcgac ttcgcggag tggtggaagta 504 catcaccgac gagcaaggca agaccgagcg cctttgcgac gctcaccggg ctggttgccc 510 tcgccgctgg gctggcggc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc gtctatggcc ctggaaacgc gcgggaaaac ttggccgtca 522 ctgaaagag aggggggac gttgacactt gaggggccga ctcaccggg gcggcgttga 528 cagatagagg gcaggctcga tttcggcgg gagggggac gtggcagac ttcggaaaacg ctggcaaacg 534 gcgaaaacg ctgatttac gcgagtttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga gaggggggc cctattgaca ttgaggggg 552 tgtcaccagg gagaaaatcc agcattgaa agggggggc cctattgaca tttgaggggg 552 tgtcacagg gagaaaatcc agcattgaa aggggttccg cccgttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tatttataaa ccttgtttt aaccagggct 564 gcgccctgtg cgcggaaccg cgcacgccga agggggggc cccccctct cgaaaccgc 570 cggcccgcta acgcgggccc cccatccccc cagggggggcg gcccctctcc ggaaccgcc 580 cccccccca aaatggaggc gccgcagcc ctatccccc ggaaccgcc 580 cccccccca aaatggaggc gccgcagcc ggaaggaggga ccccccccc ggaaccgcc 580 cccccccaa aaatggcagc gccgaacccc caggggggga cccccccccc	ctgtcggcct	acctgctggc	cgtcggccag	ggctacaaaa	tcacgggcgt	cgtggactat	4740
ctgctgggga agatcgaaga gaagcaggac gagcttggca aggtcatgat gggcgtggtc 492 cgcccgaggg cagagccatg actttttag ccgctaaaac ggccgggggg tgcgcgtgat 498 tgccaagcac gtccccatgc gctccatcaa gaagagcgac ttcgcggagc tggtgaagta 504 catcaccgac gagcaaggca agaccgagcg cctttgcgac gctcaccggg ctggttgacc 510 tcgccgctgg gctggcggc gtctatggcc ctgcaaacg gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc cgccggcgtt gtggatacct cgcggaaaac ttggccctca 522 ctgacagatg aggggcggac gttacactt gaggggccga ctcacccggc gcggcgttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaaccg 534 gcgaaaacgc ctgatttac gcgagttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagat gctgacagat gaggggcga cctattgaca tttgaggggc 552 tgtccacagg cagaaaatcc agcatttgca agggtttcc cacagttgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgagggggc cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gagggggcga cctattgaca tttgaggggc 552 tgtccacagg cagaaaatcc agcatttgca agggttccg cccgtttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 564 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccctctc cgaaccctcc 570 cggcccgcta acgcgggccc cccatcccc caggggctgc gcccctcggc ggcagcagc 588 ggatgggcga tcagcccgag gcggacgcc ggaaggactg gccggaacg ggcggatacg 588 tcgacattca gcgaccaggt gccggcagt gagggcgg gcccggcaat ttttaccttg 600 ggcattcttg gcatagtgg ccggggggc gtcgggggggg gccggcaat ttttaccttg 600 ggcattcttg gcatagtgg ccgggggcc gtcggggggg ggccggcaat ttttaccttg 600 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacga aattggacct 612 ttaccagaatt actctatgaa ggcacattt taaaaagcta ccaagacgaa gagggtgaag	gagcacgtcc	gcgagctggc	ccgcatcaat	ggcgacctgg	gccgcctggg	cggcctgctg	4800
tgcccagagg cagagcatg actttttag ccgctaaaac ggccgggggg tgcgcgtgat 498 tgccaagcac gtccccatgc gctccatcaa gaagagcgac ttcgcggagc tggtgaagta 504 catcaccgac gagcaaggca agaccgagcg cctttgcgac gctcaccggg ctggttgccc 510 tcgccgctgg gctggcggcc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc cgccggcgtt gtggatacct cgcggaaaac ttggccctca 522 ctgacagatg aggggcggac gttgacactt gaggggccga ctcaccggc gcggcgttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaaccg 534 gcgaaaacgc ctgatttac gcgagttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gaggggcgca cctattgaca tttgaggggc 528 tgtccacagg cagaaaatcc agcatttgca agggtttcc cccgttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 564 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctc 570 cggcccgcta acgcgggcct cccatcccc caggggctgc gcccctctgc ggcagacggc 576 ccggcccgcta acgcgggcct cccatcccc caggggctgc gcccctcggc ggcagacggc 588 ggatggggcga tcagcccgag gcggacgc ggaaggatg gccggcaat ttttaccttg 600 ggatgggcga tcagccggg attcacggac ttcatggcg ggccggcaat ttttaccttg 600 ggcattcttg gcatagtgg cgcgggtcc gtgctcgtgt tcgggggtgc gataaaccca 606 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacga aattggacct 612 ttaccagaatt actctatgaa gcgcatatt taaaaagcta ccaagacgaa gagggtgaag	aaactctggc	tcaccgacga	cccgcgcacg	gcgcggttcg	gtgatgccac	gatcctcgcc	4860
tgccaagcac gtccccatgc gctccatcaa gaagagcgac ttcgcggagc tggtgaagta 504 catcaccgac gagcaaggca agaccgagcg cctttgcgac gctcaccggg ctggttgccc 510 tcgccgctgg gctggcggcc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc cgccggcgtt gtggatacct cgcggaaaac ttggccctca 522 ctgacagatg aggggcggac gttgacactt gaggggccga ctcaccggc gcggcgttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaatcg 534 gcgaaaacgc ctgatttac gcgagtttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gagggggcga cctattgaca tttgaggggc 528 tgtccacagg cagaaaatcc agcatttgca agggtttccg cccgttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 5646 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctcc 570 cggcccgcta acgcgggccc cccatcccc caggggctgc gcccctctgc cgcgaacggc 582 cgacaggccga aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 582 ggatgggcga tcagcccgag cgcgacgcc ggaagcattg acgtgccgca ggtgctggca 582 tcgacattca gcgaccaggt gccggcagt gagggcggcg gccctctggc ggcagtaacg 582 tccaccccaa aaatggcagc gccggcagt cttgccattg ccgggatcgg ggcagtaacg 582 tccacctcca cagaccaggt gccggcagt cttgccattg ccgggatcgg ggcagtaacg 582 tccacctcca cagaccaggt gccggcagt gagggcggc gccctgcgc 594 ttcacttcgg ccgtcgggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 600 ggcattcttg gcatagtggt cgcggggtcc gtgctcgtgt tcgggggtgc gataaaccca 606 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgaa aattggacct 612 ttacagaatt actctatgaa ggcacattt taaaaagcta ccaagacgaa gagggatgaag 6180	ctgctggcga	agatcgaaga	gaagcaggac	gagcttggca	aggtcatgat	gggcgtggtc	4920
catcaccgac gagcaaggca agaccgagcg cctttgcgac gctcaccggg ctggttgccc 510 tcgccgctgg gctggcggcc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc cgccggcgtt gtggatacct cgcggaaaac ttggccctca 522 ctgacagatg aggggcggac gttgacactt gaggggccga ctcacccggc gcggcgttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaatcg 534 gcgaaaacgc ctgatttac gcgagttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gaggggcgac cctattgaca tttgaggggc 552 tgtccacagg cagaaaatcc agcattgca aggggttccg cccgttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 564 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc ccccctctc cgaaccctcc 570 cggcccctaa acgcgggcct cccatcccc caggggctgc gcccctcggc ggcagtacgg 582 ctcacccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaccg 582 ggatgggcga tcagcccgag cgcgacgcc ggaagcattg acgtgccga ggtgctggca 582 ctcaccccaa aaatggcagc gccggcagt cttgccattg ccgggatcgg ggcagtaacg 582 ggatgggcga tcagcccgag cgcgacgcc ggaagcattg acgtgccgca ggtgctgca 588 ctcacctca gcgaccaggt gccggcagt gagggcggcg gcctgggtgg cggcctgccc 594 ctcactccg ccgtcggggc attcaccgac ttcatggcg ggccggcaat ttttaccttg 600 ggcattcttg gcatagtggt cgcgggtgc gtgctcgtgt tcgggggtgc gataaaccca 606 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgaa gaggatgaag 6180	cgcccgaggg	cagagccatg	acttttttag	ccgctaaaac	ggccgggggg	tgcgcgtgat	4980
tcgccgctgg gctggcggc gtctatggcc ctgcaaacgc gccagaaacg ccgtcgaagc 516 cgtgtgcgag acaccgcggc cgccggcgtt gtggatacct cgcggaaaac ttggccctca 522 ctgacagatg aggggcgac gttgacactt gaggggccga ctcacccggc gcggcgttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaatcg 534 gcgaaaacgc ctgatttac gcgagttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagatg gctgacagat gaggggcga cctattgaca tttgaggggc 552 tgccacagg cagaaaatcc agcatttgca agggttccg cccgttttc ggccaccgct 558 aacctgctt ttaacctgct tttaaaccaa tatttataaa ccttgtttt aaccagggct 564 gcgccctgtg cgcgtgaccg cgcacgcca aagggggggc ccccctctct cgaaccctcc 570 gcgccctgtg cgcgtgaccg cgcacgcca aagggggtgc ccccctctt cgaaccctcc 570 gcgcccgcta acgcgggcct cccatcccc caggggctgc gcccctcggc ggcagaacgg 582 ggatgggcga tcagcccga gcggacgcc ggaaggatg gcggatggcg ggcagtaacg 582 ggatgggcga tcagcccgaa gcggacgcc ggaaggatg gcggatggg ggcagtaacg 582 ggatgggcga tcagcccgaa gcggacgcc ggaagcattg acgggatgg ggcagtaacg 582 ggatgggcga tcagcccgaa gcggacgcc ggaagcattg acgggcgca ggcctgccc 594 ggatgggcga tcagcccaggt gccgggaat tcaacggac ttcactcgg cgcacactt tgaggggc attcacggac ttcatgggg ggccggaat ttttaccttg 600 ggcattcttg gcatagtgg cgcgggtgc gtcatgggg ggcagaaccatt tgaggggat ggtaagatta taccgaggta tgaaaacga aattggacct 612 gcaaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacga gaggatgaag 6180 ttaacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	tgccaagcac	gtccccatgc	gctccatcaa	gaagagcgac	ttcgcggagc	tggtgaagta	5040
cgtgtgcgag acaccgcggc cgccggcgtt gtggatacct cgcggaaaac ttggccctca 522 ctgacagatg aggggcgac gttgacactt gaggggccga ctcacccggc gcggcgttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaatcg 534 gcgaaaacgc ctgatttac gcgagttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gaggggcga cctattgaca tttgaggggc 552 tgacactga ggggcagat gcagacagat gaggggcga cctattgaca tttgaggggc 552 tgacacagg cagaaaatcc agcattgca agggttccg cccgttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 564 gcgcccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctcc 570 ccggcccgcta acgcgggccc cccatcccc caggggctgc gccctctgg cgcgaacggc 576 ctcaccccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 582 cggatgggcga tcagcccgag gccggcagt gagggcggcg gcctgggcg ggcggcaat tttaccttg 600 cggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 606 cggcaaccatt tgaggggata ggtaagatta taccgaggta tggaaaacga gaggatgaag 6180 cttacagaatt actctatgaa ggtaagatta taccgaggta tgaaaacgaa gaggatgaag 6180 cttacagaatt actctatgaa ggcactatt taaaaagcta ccaagacgaa gaggatgaag 6180 ctgacaatta actctatgaa ggcactatt taaaaagcta ccaagacgaa gaggatgaag 6180 ctgacaatta actctatgaa ggcactatt taaaaagcta ccaagacgaa gaggatgaag 6180 ctgacaatta actctatgaa ggcactatt taaaaagcta ccaagacgaa gaggatgaag 6180 ctgacactatt taacagaatta actctatgaa ggcactatt taaaaagcta ccaagacgaa gaggatgaag 6180 ctgacacacta ccaagacgaa gaggatgaag 6180 ctgacacacacta ccaagacgaa gaggatgaag 6180 ctgacacacacta ccaagacgaa gaggatgaag 6180 ctgacacacacta ccaagacgaa gaggatgaag 6180 ctgacacacactactaccacacactactaccacacactactac	catcaccgac	gagcaaggca	agaccgagcg	cctttgcgac	gctcaccggg	ctggttgccc	5100
ctgacagatg aggggcggac gttgacactt gaggggccga ctcacccggc gcggcgttga 528 cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaatcg 534 gcgaaaacgc ctgatttac gcgagtttcc cacagatgat gtggacaagc ctgggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gaggggcgca cctattgaca tttgaggggc 552 tgtccacagg cagaaaatcc agcatttgac agggtttccg cccgttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 564 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctcc 570 cggccccgta acgcgggccc cccatcccc caggggctgc gcccctctgc cgcgaacggc 582 ctcaccccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 582 cggatgggcga tcagcccgag cgcgacgcc ggaaggattg acggccgca ggtgctggca 588 ccgacattca gcgaccaggt gccggcagt gagggcggcg gcctgggtgg ggccggcat tttaccttg 600 ggcattcttg gcatagtggt cgcgggtgc gtcatagtgt tcaggggtgc gataaaccca 606 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacga aattggacct 612 cttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 618 c	tcgccgctgg	gctggcggcc	gtctatggcc	ctgcaaacgc	gccagaaacg	ccgtcgaagc	5160
cagatgaggg gcaggctcga tttcggccgg cgacgtggag ctggccagcc tcgcaaatcg 534 gcgaaaacgc ctgatttac gcgagttcc cacagatgat gtggacaagc ctggggataa 540 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 546 tgacacttga ggggcagagt gctgacagat gaggggcgca cctattgaca tttgaggggc 552 tgtccacagg cagaaaatcc agcatttgca agggttccg cccgttttc ggccaccgct 558 aacctgtctt ttaacctgct tttaaaccaa tatttataaa ccttgtttt aaccagggct 564 gcgccctgtg cgcgtgaccg cgcacgcca aggggggtgc cccccttct cgaaccctcc 570 gcgcccgcta acgcgggccc cccatcccc caggggctgc gcccctcggc cgcgaacggc 582 ggatgggcga tcagccgaa gcggacgcc cttgccattg ccgggatcgg ggcagtaacg 582 ggatgggcga tcagcccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 582 ggatgggcga tcagcccgag cgcgacgcc ggaagcattg acgtgccga ggtgctggca 588 gcgacattca gcgaccaggt gccgggcagt gagggcggcg gcctgggtgg cggcctgccc 594 ggcattcttg gcatagtggt cgcgggtgc gtcatggtg tcgggggtg gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgaa aattggacct 6120 ttacagaatt acctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	cgtgtgcgag	acaccgcggc	cgccggcgtt	gtggatacct	cgcggaaaac	ttggccctca	5220
gcgaaaacgc ctgattttac gcgagtttcc cacagatgat gtggacaagc ctggggataa 5400 gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 5460 tgacacttga ggggcagagt gctgacagat gaggggcgca cctattgaca tttgaggggc 5520 tgtccacagg cagaaaatcc agcatttgca agggtttccg cccgttttc ggccaccgct 5580 aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 5640 gcgccctgtg cgcgtgaccg cgcacgccga agggggggtgc cccccttct cgaaccctcc 5700 cggcccgcta acgcgggccc cccatcccc caggggctgc gccctctggc cgcgaacggc 5760 ctcaccccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 5820 ggatgggcga tcagcccgag cgcgacgcc ggaagcattg acgtgccgca ggtgctggca 5880 tcgacattca gcgaccaggt gccgggacg gccgggagt cggcctgccc 5940 ttcactccg ccgtcagggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6000 ggcattcttg gcatagtgg cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6000 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgaa aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	ctgacagatg	aggggcggac	gttgacactt	gaggggccga	ctcacccggc	gcggcgttga	5280
gtgccctgcg gtattgacac ttgaggggcg cgactactga cagatgaggg gcgcgatcct 54666666666666666666666666666666666666	cagatgaggg	gcaggctcga	tttcggccgg	cgacgtggag	ctggccagcc	tcgcaaatcg	5340
tgacacttga ggggcagagt gctgacagat gaggggcgca cctattgaca tttgaggggc 5526 tgtccacagg cagaaaatcc agcatttgca agggtttccg cccgtttttc ggccaccgct 5586 aacctgtctt ttaacctgct tttaaaccaa tatttataaa ccttgtttt aaccagggct 5646 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctcc 5706 cggcccgcta acgcgggcct cccatcccc caggggctgc gcccctcggc cgcgaacggc 5766 ctcaccccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 5826 ggatgggcga tcagcccgag cgcgacgccc ggaagcattg acgtgccgca ggtgctggca 5886 tcgacattca gcgaccaggt gccgggcagt gagggcggcg gcctgggtgg cggcctgccc 5946 ttcacttcgg ccgtcggggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6006 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6066 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgaa aattggacct 6126 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6186	gcgaaaacgc	ctgattttac	gcgagtttcc	cacagatgat	gtggacaagc	ctggggataa	5400
tgtccacagg cagaaaatcc agcatttgca agggtttccg cccgtttttc ggccaccgct 5586 aacctgtctt ttaacctgct tttaaaccaa tatttataaa ccttgtttt aaccagggct 5646 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctcc 5706 cggcccgcta acgcgggcct cccatcccc caggggctgc gccctcggc cgcgaacggc 5766 ctcacccca aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 5826 ggatgggcga tcagcccgag cgcgacgcc ggaagcattg acgtgccgca ggtgctggca 5886 tcgacattca gcgaccaggt gccggcagt gagggcggcg gcctgggtgg cggcctgccc 5946 ttcacttcgg ccgtcgggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6006 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6066 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6126 ttacaggaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6186	gtgccctgcg	gtattgacac	ttgaggggcg	cgactactga	cagatgaggg	gcgcgatcct	5460
aacctgtctt ttaacctgct tttaaaccaa tattataaa ccttgtttt aaccagggct 5640 gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctcc 5700 cggcccgcta acgcgggcct cccatcccc caggggctgc gcccctcggc cgcgaacggc 5760 ctcaccccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 5820 ggatgggcga tcagcccgag cgcgacgccc ggaagcattg acgtgccgca ggtgctggca 5880 tcgacattca gcgaccaggt gccggcagt gagggcggcg gcctgggtgg cggcctgccc 5940 ttcacttcgg ccgtcggggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6000 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	tgacacttga	ggggcagagt	gctgacagat	gaggggcgca	cctattgaca	tttgaggggc	5520
gcgccctgtg cgcgtgaccg cgcacgccga aggggggtgc cccccttct cgaaccctcc 5700 cggcccgcta acgcgggctt cccatcccc caggggctgc gccctcggc cgcgaacggc 5760 ctcaccccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 5820 ggatgggcga tcagcccgag cgcgacgccc ggaagcattg acgtgccgca ggtgctggca 5880 tcgacattca gcgaccaggt gccgggcagt gagggcggcg gcctgggtgg cggcctgccc 5940 ttcacttcgg ccgtcggggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6000 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	tgtccacagg	cagaaaatcc	agcatttgca	agggtttccg	cccgtttttc	ggccaccgct	5580
cggcccgcta acgcgggcct cccatcccc caggggctgc gcccctcggc cgcgaacggc 5766 ctcacccca aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 5826 ggatgggcga tcagcccgag cgcgacgccc ggaagcattg acgtgccgca ggtgctggca 5886 tcgacattca gcgaccaggt gccgggcagt gagggcggcg gcctgggtgg cggcctgccc 5946 ttcacttcgg ccgtcgggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6006 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6066 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6126 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6186	aacctgtctt	ttaacctgct	tttaaaccaa	tatttataaa	ccttgttttt	aaccagggct	5640
ctcaccccaa aaatggcagc gctggcagtc cttgccattg ccgggatcgg ggcagtaacg 5820 ggatgggcga tcagcccgag cgcgacgccc ggaagcattg acgtgccgca ggtgctggca 5880 tcgacattca gcgaccaggt gccgggcagt gagggcggcg gcctgggtgg cggcctgccc 5940 ttcacttcgg ccgtcggggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6000 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	gcgccctgtg	cgcgtgaccg	cgcacgccga	aggggggtgc	cccccttct	cgaaccctcc	5700
ggatgggcga tcagcccgag cgcgacgcc ggaagcattg acgtgccgca ggtgctggca 5880 tcgacattca gcgaccaggt gccgggcagt gagggcggcg gcctgggtgg cggcctgccc 5940 ttcacttcgg ccgtcggggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6000 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	cggcccgcta	acgcgggcct	cccatccccc	caggggctgc	gcccctcggc	cgcgaacggc	5760
tcgacattca gcgaccaggt gccgggcagt gagggcggcg gcctgggtgg cggcctgccc 5940 ttcacttcgg ccgtcggggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6000 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	ctcaccccaa	aaatggcagc	gctggcagtc	cttgccattg	ccgggatcgg	ggcagtaacg	5820
ttcacttcgg ccgtcggggc attcacggac ttcatggcgg ggccggcaat ttttaccttg 6000 ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	ggatgggcga	tcagcccgag	cgcgacgccc	ggaagcattg	acgtgccgca	ggtgctggca	5880
ggcattcttg gcatagtggt cgcgggtgcc gtgctcgtgt tcgggggtgc gataaaccca 6060 gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	tcgacattca	gcgaccaggt	gccgggcagt	gagggcggcg	gcctgggtgg	cggcctgccc	5940
gcgaaccatt tgaggtgata ggtaagatta taccgaggta tgaaaacgag aattggacct 6120 ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	ttcacttcgg	ccgtcggggc	attcacggac	ttcatggcgg	ggccggcaat	ttttaccttg	6000
ttacagaatt actctatgaa gcgccatatt taaaaagcta ccaagacgaa gaggatgaag 6180	ggcattcttg	gcatagtggt	cgcgggtgcc	gtgctcgtgt	tcgggggtgc	gataaaccca	6060
	gcgaaccatt	tgaggtgata	ggtaagatta	taccgaggta	tgaaaacgag	aattggacct	6120
Page 8	ttacagaatt	actctatgaa	gcgccatatt			gaggatgaag	6180

aggatgagga	ggcagattgc	cttgaatata	ttgacaatac	tgataagata	atatatcttt	6240
tatatagaag	atatcgccgt	atgtaaggat	ttcagggggc	aaggcatagg	cagcgcgctt	6300
atcaatatat	ctatagaatg	ggcaaagcat	aaaaacttgc	atggactaat	gcttgaaacc	6360
caggacaata	accttatagc	ttgtaaattc	tatcataatt	gggtaatgac	tccaacttat	6420
tgatagtgtt	ttatgttcag	ataatgcccg	atgactttgt	catgcagctc	caccgatttt	6480
gagaacgaca	gcgacttccg	tcccagccgt	gccaggtgct	gcctcagatt	caggttatgc	6540
cgctcaattc	gctgcgtata	tcgcttgctg	attacgtgca	gctttccctt	caggcgggat	6600
tcatacagcg	gccagccatc	cgtcatccat	atcaccacgt	caaagggtga	cagcaggctc	6660
ataagacgcc	ccagcgtcgc	catagtgcgt	tcaccgaata	cgtgcgcaac	aaccgtcttc	6720
cggagactgt	catacgcgta	aaacagccag	cgctggcgcg	atttagcccc	gacatagccc	6780
cactgttcgt	ccatttccgc	gcagacgatg	acgtcactgc	ccggctgtat	gcgcgaggtt	6840
accgactgcg	gcctgagttt	tttaagtgac	gtaaaatcgt	gttgaggcca	acgcccataa	6900
tgcgggctgt	tgcccggcat	ccaacgccat	tcatggccat	atcaatgatt	ttctggtgcg	6960
taccgggttg	agaagcggtg	taagtgaact	gcagttgcca	tgttttacgg	cagtgagagc	7020
agagatagcg	ctgatgtccg	gcggtgcttt	tgccgttacg	caccaccccg	tcagtagctg	7080
aacaggaggg	acagctgata	gacacagaag	ccactggagc	acctcaaaaa	caccatcata	7140
cactaaatca	gtaagttggc	agcatcaccc	ataattgtgg	tttcaaaatc	ggctccgtcg	7200
atactatgtt	atacgccaac	tttgaaaaca	actttgaaaa	agctgttttc	tggtatttaa	7260
ggttttagaa	tgcaaggaac	agtgaattgg	agttcgtctt	gttataatta	gcttcttggg	7320
gtatctttaa	atactgtaga	aaagaggaag	gaaataataa	atggctaaaa	tgagaatatc	7380
accggaattg	aaaaaactga	tcgaaaaata	ccgctgcgta	aaagatacgg	aaggaatgtc	7440
tcctgctaag	gtatataagc	tggtgggaga	aaatgaaaac	ctatatttaa	aaatgacgga	7500
cagccggtat	aaagggacca	cctatgatgt	ggaacgggaa	aaggacatga	tgctatggct	7560
ggaaggaaag	ctgcctgttc	caaaggtcct	gcactttgaa	cggcatgatg	gctggagcaa	7620
tctgctcatg	agtgaggccg	atggcgtcct	ttgctcggaa	gagtatgaag	atgaacaaag	7680
ccctgaaaag	attatcgagc	tgtatgcgga	gtgcatcagg	ctctttcact	ccatcgacat	7740
atcggattgt	ccctatacga	atagcttaga	cagccgctta	gccgaattgg	attacttact	7800
gaataacgat	ctggccgatg	tggattgcga	aaactgggaa	gaagacactc	catttaaaga	7860
tccgcgcgag	ctgtatgatt	ttttaaagac	ggaaaagccc	gaagaggaac	ttgtcttttc	7920
ccacggcgac	ctgggagaca	gcaacatctt	tgtgaaagat	ggcaaagtaa	gtggctttat	7980
tgatcttggg	agaagcggca	gggcggacaa	gtggtatgac	attgccttct	gcgtccggtc	8040

gatcagggag	gatatcgggg	aagaacagta	tgtcgagcta		tactggggat	8100
caagcctgat	tgggagaaaa	taaaatatta	tattttactg	gatgaattgt	tttagtacct	8160
agatgtggcg	caacgatgcc	ggcgacaagc	aggagcgcac	cgacttcttc	cgcatcaagt	8220
gttttggctc	tcaggccgag	gcccacggca	agtatttggg	caaggggtcg	ctggtattcg	8280
tgcagggcaa	gattcggaat	accaagtacg	agaaggacgg	ccagacggtc	tacgggaccg	8340
acttcattgc	cgataaggtg	gattatctgg	acaccaaggc	accaggcggg	tcaaatcagg	8400
aataagggca	cattgccccg	gcgtgagtcg	gggcaatccc	gcaaggaggg	tgaatgaatc	8460
ggacgtttga	ccggaaggca	tacaggcaag	aactgatcga	cgcggggttt	tccgccgagg	8520
atgccgaaac	categeaage	cgcaccgtca	tgegtgcgcc	cegegaaacc	ttccagtccg	8580
tcggctcgat	ggtccagcaa	gctacggcca	agatcgagcg	cgacagcgtg	caactggctc	8640
cccctgccct	gcccgcgcca	tcggccgccg	tggagcgttc	gcgtcgtctc	gaacaggagg	8700
cggcaggttt	ggcgaagtcg	atgaccatcg	acacgcgagg	aactatgacg	accaagaagc	8760
gaaaaaccgc	cggcgaggac	ctggcaaaac	aggtcagcga	ggccaagcag	gccgcgttgc	8820
tgaaacacac	gaagcagcag	atcaaggaaa	tgcagctttc	cttgttcgat	attgcgccgt	8880
ggccggacac	gatgcgagcg	atgccaaacg	acacggcccg	ctctgccctg	ttcaccacgc	8940
gcaacaagaa	aatcccgcgc	gaggcgctgc	aaaacaaggt	cattttccac	gtcaacaagg	9000
acgtgaagat	cacctacacc	ggcgtcgagc	tgcgggccga	cgatgacgaa	ctggtgtggc	9060
agcaggtgtt	ggagtacgcg	aagcgcaccc	ctatcggcga	gccgatcacc	ttcacgttct	9120
acgagctttg	ccaggacctg	ggctggtcga	tcaatggccg	gtattacacg	aaggccgagg	9180
aatgcctgtc	gcgcctacag	gcgacggcga	tgggcttcac	gtccgaccgc	gttgggcacc	9240
tggaatcggt	gtcgctgctg	caccgcttcc	gcgtcctgga	ccgtggcaag	aaaacgtccc	9300
gttgccaggt	cctgatcgac	gaggaaatcg	tcgtgctgtt	tgctggcgac	cactacacga	9360
aattcatatg	ggagaagtac	cgcaagctgt	cgccgacggc	ccgacggatg	ttcgactatt	9420
tcagctcgca	ccgggagccg	tacccgctca	agctggaaac	cttccgcctc	atgtgcggat	9480
cggattccac	ccgcgtgaag	aagtggcgcg	agcaggtcgg	cgaagcctgc	gaagagttgc	9540
gaggcagcgg	cctggtggaa	cacgcctggg	tcaatgatga	cctggtgcat	tgcaaacgct	9600
agggccttgt	ggggtcagtt	ccggctgggg	gttcagcagc	cagcgcttta	ctggcatttc	9660
aggaacaagc	gggcactgct	cgacgcactt	gcttcgctca	gtatcgctcg	ggacgcacgg	9720
cgcgctctac	gaactgccga	taaacagagg	attaaaattg	acaattgtga	ttaaggctca	9780
gattcgacgg	cttggagcgg	ccgacgtgca	ggatttccgc	gagatccgat	tgtcggccct	9840
gaagaaagct	ccagagatgt	tcgggtccgt	ttacgagcac	gaggagaaaa	agcccatgga	9900
ggcgttcgct	gaacggttgc	gagatgccgt	ggcattcggc Page		acggcgagat	9960

ggcgttgccg gcgggtttat tgctcgtgat gatcgtccga cagattccaa cgggaatctg 10140 gtggatgcg atcttcatcc tcggcgcact taatatttcg ctattctgga gcttgttgtt 10200 tatttcggtc taccgcctgc cgggcggggt cgcggcgacg gtaggcgctg tgcagccgct 10260 gatggtcgtg ttcatctctg ccgctctgct aggtagcccg atacgattga tggcggctct 10260 gatggtcgtg ttcatctctg ccgctctgct aggtagcccg atacgattga tggcggctct 10380 aggtcctgtc ggcgtcgcag cgggcctggc gggggcggtt tccatggcgt tcggaaccgc 10380 aggtcctgtc ggcgtcgcag cgggcctggc gggggcggtt tccatggcgt tcggaaccgc 10500 ggccggagga cttctgctcg tccagtagc tctggctcacc tttaccgcct ggcaactggc 10500 ggccggagga cttctgctcg ttccagtagc tttagtgtt gatccgccaa tcccgatgcc 10500 tacaggaacc aatgttctcg gcctggcggt gctcggcctg atcggacgg gtttaaccta 10620 ttccatttgg ttccaggggg tcgatcagcc ggggatgat caggacgag gtttaaccta 10620 ttccatttgg ttccaggggg tcgatcagcc ggggatgat caggacgag gtttaaccta 10620 ttccatttgg ttccaggggg tcgatcagcc ggggatgat caggccgaca gtcggaactt 10740 cgggtccccg acctgtacca ttcggtgag aatggatagg ggagttgata tcgtcaacgt 10880 ttcattctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10880 ttatgtcggc atagttctca agatcgacag cctgtcacgg ttaagcgaga aatgaataag 10920 aaggctgata attcggatc ctgcgagggg gatgatatt gatcacagge agcaacgcc 10980 ttatgtcgg atagttctca agatcgacag cctgtaccgg ttaagcgaga aatgaataag 10920 aaggctgata attcggatc ctgcgagggg gatgatatt gatcacagge agcaacgcc 10980 ttatgtcgg cgttctccc gatagccg tcccggaggg gatgatatt gatcacagge agcaacgcc 10980 ttatgtcgg cgttctccc gatgacgcg tcccggaggg gatgatatt gatcacagg agcaacgcc 11040 gcgctctccc gctgacgcc tcccggacg atgggggggggg	cattgggctg	tcggtcttca	aacaggagga	cggccccaag	gacgctcaca	aggcgcatct	10020
grggatgcg atcttcatcc tcggcgcact taatattcg ctattctgga gcttgttgtt 10200 gatggtcgtc taccgcctgc cgggcggggt cgcggcgacg gtaggcgctg tgcagccgct 10260 gatggtcgtg ttcatcctct ccgcgctcgct aggtagcccg atacgattga tggcggctct 10320 ggggggctatt tgcggaactg cgggcgtggc gctgttggtg ttgacaccaa acgcagcgct 10380 agatcctgtc ggcgtcgcag cgggctggc ggggggggt tccatggcg tcggaaccgc 10440 gctgacccgc aagtggcac ctcccgtgcc tctgctcacc tttaccgcct ggcaactggc 10500 ggccggagga cttctgctcg ttccagtagc tttagtgtt gatccgccaa tcccgatgcc 10500 ggccggagga cttctgctcg ttccagtagc tttagtgttt gatccgccaa tcccgatgcc 10500 tacaggaacc aatgtctcg gcctggcgtg gctcggcctg atcggacgg gtttaaccta 10620 cttcctttgg ttccagggga tctcggcct cgaacctaca gttgttcct tactgggctt 10680 tctcagccc agatctgggg tcgatcagcc ggggatgcat caggccgaca gtcggaactt 10740 cgggtccccg acctgtacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 10800 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10800 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10800 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ttaagcgaga aatgaataag 10920 aaggctgata attcggaacc tcggaggga gatgatattt gatcacaggc agcaacgccc 10980 tgtaagtggc aatgatctc aggacggg agagatattt gatcacaggc agcaacgcc 10980 tgtaagtggc cgttctccg aatagcacg ctggacgga tccgggagaca tccgggagga aatgatatt gatcacaggc agcaacgcc 10980 tgtaagttgc cgttcttccg aatagcacg gtaggataa tcgggagga aatgatatt gatcacaggc agcaacgcc 11040 gcttagttgc cgttcttccg aatagcacg gtaggcggaacca tccggtgtt aacaatgag ggggattata tgtgggtaa 11100 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtgggtaa 11120 aacaaattgac gcttagacaa cttaaataac cattgcggac gttttaatg tactgggggg 111280 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 gagagttgca gcaagcggtc cacgctggtt tgccccagac ggcgaaaatc ctgtttgatg 11400 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccga atagggttga 11400 gtggttccga aatcggcaaa accccttata aatcaaaaaa accgggagaaaaac ctggttgatga 11400 gtggttccga aatcggcaaa aaccccttata aatcaaaaaa acgcaggagaaatac ctggttgatga 11400 gtggttccga aatcggcaaa aacgcctgaaaa aacccct	gtccggcgtt	ttcgtggagc	ccgaacagcg	aggccgaggg	gtcgccggta	tgctgctgcg	10080
tatttcggtc taccgcctgc cgggcggggt cgcggcgacg gtaggcgctg tgcagccgct 10260 gatggtcgtg treatctctg ccgctctgct aggtagcccg atacgattga tggcggtcct 10320 gggggctatt tgcggaactg cgggcgtggc gctgttggtg ttgacaccaa acgcagcgct 10380 agatcctgtc ggcgtcgcag cgggcctggc gggggcggtt tccatggcgt tcggaaccgc 10500 ggccggagga cttctgctcg ttccagtagc tttagtgtt gatccgcca tcccgatgcc 10500 ggccggagga cttctgctcg ttccagtagc tttagtgtt gatccgccaa tcccgatgcc 10500 tacaggaacc aatgttctcg gcctggcgg gctcggctg atcgggcgg gtttaaccta 10620 cttcctttgg ttccggggga tctcggcggt gctcggcctg atcggagcgg gtttaaccta 10620 cttcctttgg ttccggggga tctcgcgact cgaacctaca gttgttcct tactgggct 10800 tcactccag agatctgggg tcgatcagc ggggatgat acgggcaca gtcggaactg 10800 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10800 tcacttctaa agaaatagcg cactggagga gatgatatt gatcacaggc agcaacgctc 109800 tcactgggaa aatggaata attcggact ctgcgaggga gatgatatt gatcacaggc agcaacgcc 109800 tcactggtt acacacaca tgctaccct cgcgaggatca tccggtgttc aaacccggca 11000 gcttagttgc cgttcttccg aatagcacg gtaacactgg gaaaatatt gatcacagg ggggttgtgcgggcggtcccc gcttacaca 11100 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgag ggtgattttg 11160 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggataat tgtgggtgta 11120 acaaaattgac gcttagacaa cttaataaca cattgcggac gtttttaatg tactggggtg 11280 gttttcttt tcaccagtga gacgggcaaa acccttaa aatcacaaga gctgattgc ccttcaccgc ctggccctga 11140 gtggttccga aatcggaca acccttaata aatcaaaaga ataggcagaaatac ctgtttgag 11140 gtggttccga aatcggaaa acccttaata aatcaaaaga ataggcagaaatac ctgtttgag 11140 gtggttccga aatcggaaa accccttaata aatcaaaaga ataggcagaaatac ctgtttgag 11140 gtggttccga aatcggaaa accccttaata aatcaaaaga cggggaaaatc caggcgaaaatc ctgtttgag 11140 gtggttccga aatcggaaa accccttaata aatcaaaaga cgg	ggcgttgccg	gcgggtttat	tgctcgtgat	gatcgtccga	cagattccaa	cgggaatctg	10140
gatggtcgtg ttcatctctg ccgctctgct aggtagcccg atacgattga tggcggtcct 10320 agggggctatt tgcggaactg cgggcgtggc gctgttggtg ttgacaccaa acgcagcgct 10380 agatcctgtc ggcgtcgag cgggcctggc ggggggggtt tccatggcgt tcggaaccgg 10560 aggccggagga cttctgctcg ttccagtagc tttagtgttt gatccgccaa tcccgatgcc 10560 tacaggaacc aatgttctcg gcctggcgg gctcggcctg atcggaccgg gtttaaccta 10620 acggcccca atgcggggaga ttccggggggggggggg	gtggatgcgc	atcttcatcc	tcggcgcact	taatatttcg	ctattctgga	gcttgttgtt	10200
gggggctatt tgcggaactg cgggcgtggc gctgttggtg ttgacaccaa acgcagcgct 10380 agatcctgtc ggcgtcgcag cgggcctggc ggggggggtt tccatggcgt tcggaaccgt 10400 ggctgaccgc aagtggcaac ctcccgtgcc tctgctcacc tttaccgcct ggcaactggc 10560 tacaggaacc aatgttctcg gcctggcgtg gctcggcctg atcggacgg gtttaaccta 10620 cttcctttgg ttccggggg tccggcgtg gctcggcctg atcggagcgg gtttaaccta 10620 cttcctttgg ttccggggg tcgatcagcc ggaggatgcat caggacggg gtttaaccta 10620 cttcctttgg ttccggggg tcgatcagcc ggggatgcat caggacgac gtcggactt 10740 cgggtcccc agatctgggg tcgatcagcc ggggatgcat caggccgaca gtcggaactt 10740 cgggtccccg acctgtacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 10800 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10800 ttatgtcggc atagttctca agatcgacag cctgtcacgg ttaagcgaga aatgaataag 10920 aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 10980 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgttc aaacccggca 11040 gcttagttgc cgttctccg aatagcacg gtaacatgag caaagtctgc cgcttacca 11100 cggctctccc gctgacgcg tcccggactg atgggctggc tgtatcagg ggggattatt tgtgggtaa 11280 gcttagtcg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtgggtaa 11280 gggggggtgca gcaagggcaa accggctc 11280 ggggggggtgca gcaagggcaa accggctc 11280 gggggggggggggggggggggggggggggggggggg	tatttcggtc	taccgcctgc	cgggcggggt	cgcggcgacg	gtaggcgctg	tgcagccgct	10260
agatcctgtc ggcgtcgcag cgggcctggc gggggcggtt tccatggcgt tcggaaccgc 10446 gctgacccgc aagtggcaac ctcccgtgcc tctgctcacc tttaccgcct ggcaactggc 10506 ggccggagga cttctgctcg ttccagtagc tttagtgttt gatccgcaa tcccgatgcc 10566 tacaggaacc aatgttctcg gcctggcgtg gctcggcctg atcggagcgg gtttaaccta 10626 cttcctttgg ttccggggga tctcggcgt gctcggcctg atcggagcgg gtttaaccta 10626 tctcctttgg ttccggggga tctcggcact cgaacctaca gttgttcct tactgggctt 10686 tctcagcccc agatctgggg tcgatcagcc ggggatgat caggccgaca gtcggaactt 10746 cgggtccccg acctgtacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 10866 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10866 ttatgtcggc atagttctca agatcgacag cctgtcacgg ttaagcgaga aatgaataag 10926 aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 10986 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgttc aaacccggca 11046 gcttagttgc cgttctccg aatagcacg gtaacatgag caaagtctgc cgccttacaa 11106 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgag ggtgatttt 11166 tgccgagctg ccggtcgggg agctgttggc tggctggtg caggatatat tgtgggtga 11286 gttttcttt tcaccagtga gacgggcaac agctggttgc ctttaatag tactggggtg 11286 ggttttcttt tcaccagtga gacgggcaac agctggttgc ctttcaccgc ctggccctga 11346 gagaggttgca gacagcggtc cacgctggtt tgccccagca ggcgaaaacc ctgtttgatg 11466 gtggttcca aatcggcaa aatcggcaa aatcgccaa aatcgccaa atccctaaa aatcaaaaa atagcccgaa aatcggcaa aatcgaaa cttaataaca cattgcggac ggcgaaaacc ctggtcggg 11286 ggttttcctt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 gtggttccaa aatcggcaaa aatcgcctaaa aatcaaaaaa aatcgccaa aatcgacaa aatcgccaa aatcgccaa aatcgacaa aatcgccaa aatcgccaa aatcgccaa aatcgccaa aatcgccaa aatcgccaa aatcgccaa aatcgccaa aatcgccaaa aatcgccaaa aatcgccaaaa aatcgccaaaa aatcgccaaaa aatcgccaaaaac ctgatgaaa caagggtcac aatgagactca aacggcaaaac caaggcaaacc caacgccaaaaccaaacaaa	gatggtcgtg	ttcatctctg	ccgctctgct	aggtagcccg	atacgattga	tggcggtcct	10320
gctgacccg aagtggcaac ctcccgtgcc tctgctcacc tttaccgcct ggcaactggc 10500 ggccggagga cttctgctcg ttccagtagc tttagtgtt gatccgccaa tcccgatgcc 10500 tacaggaacc aatgttctcg gcctggcgtg gctcggcctg atcggaggg gtttaaccta 10620 cttcctttgg ttccggggg tctcgcgct cgaacctaca gttgttcct tactgggctt 10680 tctcagcccc agatctgggg tcgatcagcc ggggatgcat caggccgaca gtcggaactt 10740 cgggtccccg acctgacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 10800 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10860 ttatgtcggc atagttctca agatcgacag cctgtcacgg ttaagcgaga aatgaataag 10920 aaggctgata attcggatct ctgcgaggag gatgatatt gatcacaggc agcaacgctc 10980 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgttc aaacccgcca 11040 gcttagttgc cgttctccg aatagcacg gtaacatcgg caaggttgata ccggcgca 11100 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgatttt 11160 tgccgagctg ccggtcgggg agctgttggc tggctgggc caggatatat tgtgggtga 11280 gttttcttt tcaccagtga gacgggcaac agctggttg cattagagc gcaaggctg 11280 ggtggttccga aatcggcaa atcccttata aatcaaaaga atagcccgag atagggttga 11400 gtggttccga aatcggcaa aatcgcaa aacccttata aatcaaaaga atagcccgag atagggttga 11400 gtggttccga agtttggaac aagaggtccac tattaaaaga cgtggactcc aacgtcaaag 11520 gtgttgttcc aggtttggaac aacaggccac tattaaaaga cgtggactcc aacgtcaaag 11520 gtgttgttcc aggtttggaac aacaggccac aacgccac aacgtcaaag 11520 gtgttgtcc aggttggaac aacggcaacac aacgtcaaaga aatcgccaaa 11500 gtggttccga aatcggcaaa atcccttata aatcaaaaga cgtggactcc aacgtcaaag 11520 gtgttgttcc aggtttggaac aacgaggtcac tattaaaaga cgtggaccc aacgtcaaag 11520 gtgttgttcc aggtttggaac aacgaggcaac aacgccac tattaaaaga cgtggaccc aacgtcaaag 11520 gtgttgtcc aggttggaac aacgagagcac aacgccac aacgtcaaag 11520 gtgttgtcccaa aggttggaac aacgaggcac aacgccac aacgtcaaag 11520 gtgttgtccaa aggttggaac aacgaggcac aacgagagcac aacgccac aacgtcaaaa 11500 aacaaaacgaaaccac aacgccaaaaccac aacgccaaaaccac aacgccaaaaccac aacgccaaaaccac aacgccaaaaccac aacgccaaaaccac aacgccaaaaccacacaca	gggggctatt	tgcggaactg	cgggcgtggc	gctgttggtg	ttgacaccaa	acgcagcgct	10380
ggccggagga cttctgctcg ttccagtagc tttagtgttt gatccgccaa tcccgatgcc 10560 tacaggaacc aatgtctcg gcctggcgtg gctcggcctg atcggagcgg gtttaaccta 10620 cttcctttgg ttccggggga tctcgcgact cgaacctaca gttgttcct tactgggctt 10680 tcccagccc agatctgggg tcgatcagcc ggggatgcat caggccgaca gtcggaactt 10740 cgggtccccg acctgtacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 10860 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10860 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10860 tcacttctaa agaactagcag ccactcagct tcctcagcgg ttaagcgaga aatgaataag 10920 aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 10980 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgttc aaacccggca 11040 gcttagttgc cgttctccg aatagcacg gtaacatggg caaagtctgc cgccttacaa 11100 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 11160 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtgggtaa 11220 acaaattgac gcttagacaa cttaataaca cattgcggac gttttaatg tactggggtg 11280 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 ggaggttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11460 gtggttccga aatcggcaaa atcccttata aatcaaagaa atagcccgag atagggttga 11520 gtgttgttcc agtttggaac agaggtcac tattaaagaa cgtggactcc aacgtcaaag 11520 gtgttgttcc agtttggaac aagagtccac tattaaaagaa cgtggactcc aacgtcaaag 11520 gtgtgttgtcc agtttggaac aagagtccac tattaaaagaa cgtggactcc aacgtcaaag 11520 gtgtgtgtgtccacgaacaccac aacgtcaaaacc	agatcctgtc	ggcgtcgcag	cgggcctggc	gggggcggtt	tccatggcgt	tcggaaccgt	10440
tacaggaacc aatgttctcg gcctggcgtg gctcggcctg atcggacgg gtttaaccta 1062000 cttcctttgg ttccggggga tctcgcgact cgaacctaca gttgtttcct tactgggctt 107400 cgggtccccg agatctgggg tcgatcagcc ggggatgcat caggccgaca gtcggaactt 107400 cgggtccccg acctgtacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 108600 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 108600 ttatgtcggc atagttctca agatcgacag cctgtcacgg ttaagcgaga aatgaataag 109200 aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 109800 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgtttc aaacccggca 110400 gcttagttgc cgttcttccg aatagcatcg gtaacatgag caaagtctgc cgccttacaa 111000 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 111600 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtggtgtaa 112200 acaaattgac gcttagacaa cttaataaca cattgcggac gtttttaatg tactggggtg 112800 gtttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 113400 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccga atagggttga 114600 gtggttccga aatcggcaaa atcccttata aatcaaaaga cgtggactcc aacgtcaaag 115200	gctgacccgc	aagtggcaac	ctcccgtgcc	tctgctcacc	tttaccgcct	ggcaactggc	10500
cttcctttgg ttccggggga tctcgcgact cgaacctaca gttgtttcct tactgggctt 106800000000000000000000000000000000000	ggccggagga	cttctgctcg	ttccagtagc	tttagtgttt	gatccgccaa	tcccgatgcc	10560
tctcagccc agatctgggg tcgatcagc ggggatgcat caggccgaca gtcggaactt 10740 cgggtccccg acctgtacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 10800 tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10800 aaggctgata attcggatct agatcgacag cctgtcacgg ttaagcgaga aatgaataag 10920 aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 109800 tgtcatcgt acaatcaaca tgctaccctc cgcgagatca tccgtgttc aaacccggca 11040 gcttagttgc cgttctccg aatagcatcg gtaacatgag caaagtctgc cgccttacaa 11100 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 11160 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtgggtgaa 11220 acaaattgac gctagacaa cttaataaca cattgcggac gttttaatg tactggggtg 11280 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11400 gtggttccca agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 11520	tacaggaacc	aatgttctcg	gcctggcgtg	gctcggcctg	atcggagcgg	gtttaaccta	10620
cgggtccccg acctgtacca ttcggtgagc aatggatagg ggagttgata tcgtcaacgt 10800000000000000000000000000000000000	cttcctttgg	ttccggggga	tctcgcgact	cgaacctaca	gttgtttcct	tactgggctt	10680
tcacttctaa agaaatagcg ccactcagct tcctcagcgg ctttatccag cgattccta 10866 ttatgtcggc atagttctca agatcgacag cctgtcacgg ttaagcgaga aatgaataag 10926 aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 10986 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgtttc aaacccggca 11046 gcttagttgc cgttcttccg aatagcatcg gtaacatgag caaagtctgc cgccttacaa 11106 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 11166 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtgggtgaa 11226 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11346 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11466 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 1152	tctcagcccc	agatctgggg	tcgatcagcc	ggggatgcat	caggccgaca	gtcggaactt	10740
ttatgtcggc atagttctca agatcgacag cctgtcacgg ttaagcgaga aatgaataag 10920 aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 10980 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgttc aaacccggca 11040 gcttagttgc cgttcttccg aatagcatcg gtaacatgag caaagtctgc cgccttacaa 11100 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 11160 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtggtgtaa 11220 acaaattgac gcttagacaa cttaataaca cattgcggac gttttaatg tactggggtg 11280 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11460 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11460 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 1152	cgggtccccg	acctgtacca	ttcggtgagc	aatggatagg	ggagttgata	tcgtcaacgt	10800
aaggctgata attcggatct ctgcgaggga gatgatatt gatcacaggc agcaacgctc 10986 tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgtttc aaacccggca 11046 gcttagttgc cgttcttccg aatagcatcg gtaacatgag caaagtctgc cgccttacaa 11106 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 11166 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtggtgtaa 11226 acaaattgac gcttagacaa cttaataaca cattgcggac gttttaatg tactggggtg 11286 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11346 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11466 gtgttgtcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 1152	tcacttctaa	agaaatagcg	ccactcagct	tcctcagcgg	ctttatccag	cgatttccta	10860
tgtcatcgtt acaatcaaca tgctaccctc cgcgagatca tccgtgtttc aaacccggca 11040 gcttagttgc cgttcttccg aatagcatcg gtaacatgag caaagtctgc cgccttacaa 11100 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgatttg 11160 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtggtgtaa 11220 acaaattgac gcttagacaa cttaataaca cattgcggac gttttaatg tactggggtg 11280 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11400 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11460 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 11520	ttatgtcggc	atagttctca	agatcgacag	cctgtcacgg	ttaagcgaga	aatgaataag	10920
gcttagttgc cgttcttccg aatagcatcg gtaacatgag caaagtctgc cgccttacaa 11100 cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 11160 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtggtgtaa 11220 acaaattgac gcttagacaa cttaataaca cattgcggac gttttaatg tactggggtg 11280 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11400 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11460 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 11520	aaggctgata	attcggatct	ctgcgaggga	gatgatattt	gatcacaggc	agcaacgctc	10980
cggctctccc gctgacgccg tcccggactg atgggctgcc tgtatcgagt ggtgattttg 11160 tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtggtgtaa 11220 acaaattgac gcttagacaa cttaataaca cattgcggac gtttttaatg tactggggtg 11280 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11340 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11400 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11460 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 11520	tgtcatcgtt	acaatcaaca	tgctaccctc	cgcgagatca	tccgtgtttc	aaacccggca	11040
tgccgagctg ccggtcgggg agctgttggc tggctggtgg caggatatat tgtggtgtaa 11226 acaaattgac gcttagacaa cttaataaca cattgcggac gtttttaatg tactggggtg 11286 gttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11346 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11406 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11466 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 11526	gcttagttgc	cgttcttccg	aatagcatcg	gtaacatgag	caaagtctgc	cgccttacaa	11100
acaaattgac gcttagacaa cttaataaca cattgcggac gtttttaatg tactggggtg 11286 gtttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 11346 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 11406 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 11466 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 11526	cggctctccc	gctgacgccg	tcccggactg	atgggctgcc	tgtatcgagt	ggtgattttg	11160
gtttttcttt tcaccagtga gacgggcaac agctgattgc ccttcaccgc ctggccctga 1134 gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 1140 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 1146 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 1152	tgccgagctg	ccggtcgggg	agctgttggc	tggctggtgg	caggatatat	tgtggtgtaa	11220
gagagttgca gcaagcggtc cacgctggtt tgccccagca ggcgaaaatc ctgtttgatg 1140 gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 1146 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 1152	acaaattgac	gcttagacaa	cttaataaca	cattgcggac	gtttttaatg	tactggggtg	11280
gtggttccga aatcggcaaa atcccttata aatcaaaaga atagcccgag atagggttga 1146 gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 1152	gttttcttt	tcaccagtga	gacgggcaac	agctgattgc	ccttcaccgc	ctggccctga	11340
gtgttgttcc agtttggaac aagagtccac tattaaagaa cgtggactcc aacgtcaaag 1152	gagagttgca	gcaagcggtc	cacgctggtt	tgccccagca	ggcgaaaatc	ctgtttgatg	11400
gegetgetee ageetggaae aagagteeas tattaaagaa 25.55.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5	gtggttccga	aatcggcaaa	atcccttata	aatcaaaaga	atagcccgag	atagggttga	11460
ggcgaaaaac cgtctatcag ggcgatggcc cactacgtga accatcaccc aaatcaagtt 1158	gtgttgttcc	agtttggaac	aagagtccac	tattaaagaa	cgtggactcc	aacgtcaaag	11520
	ggcgaaaaac	cgtctatcag	ggcgatggcc	cactacgtga	accatcaccc	aaatcaagtt	11580
ttttggggtc gaggtgccgt aaagcactaa atcggaaccc taaagggagc ccccgattta 1164	ttttggggtc	gaggtgccgt	aaagcactaa	atcggaaccc	taaagggagc	ccccgattta	11640
gagcttgacg gggaaagccg gcgaacgtgg cgagaaagga agggaagaaa gcgaaaggag 1170	gagcttgacg	gggaaagccg	gcgaacgtgg	cgagaaagga	agggaagaaa	gcgaaaggag	11700
cgggcgccat tcaggctgcg caactgttgg gaagggcgat cggtgcgggc ctcttcgcta 1176	cgggcgccat	tcaggctgcg	caactgttgg	gaagggcgat	cggtgcgggc	ctcttcgcta	11760
ttacgccagc tggcgaaagg gggatgtgct gcaaggcgat taagttgggt aacgccaggg 1182	ttacgccagc	tggcgaaagg	gggatgtgct	gcaaggcgat	taagttgggt	aacgccaggg	11820

			BTI-4	15		
ttttcccagt	cacgacgttg	taaaacgacg	gccagtgaat	tnnnnnnnn	nnnnnnnnn	11880
nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnn	nnnnnnnnn	nnnnnnnnn	11940
nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	12000
nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	12060
nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	12120
nnnnnnnnn	nnnnnnnnn	nnnnnnnnn	nnnnnngga	tccagatccc	gtgggcgaag	12180
aactccagca	tgagatcccc	gcgctggagg	atcatccagc	cggcgtcccg	gaaaacgatt	12240
ccgaagccca	acctttcata	gaaggcggcg	gtggaatcga	aatctcgtga	tggcaggttg	12300
ggcgtcgctt	ggtcggtcat	ttcgaacccc	agagtcccgc	tcagaagaac	tegtcaagaa	12360
ggcgatagaa	ggcgatgcgc	tgcgaatcgg	gagcggcgat	accgtaaagc	acgaggaagc	12420
ggtcagccca	ttcgccgcca	agctcttcag	caatatcacg	ggtagccaac	gctatgtcct	12480
gatagcggtc	cgccacaccc	agccggccac	agtcgatgaa	tccagaaaag	cggccatttt	12540
ccaccatgat	attcggcaag	caggcatcgc	catgggtcac	gacgagatca	tcgccgtcgg	12600
gcatgcgcgc	cttgagcctg	gcgaacagtt	cggctggcgc	gagcccctga	tgctcttcgt	12660
ccagatcatc	ctgatcgaca	agaccggctt	ccatccgagt	acgtgctcgc	tcgatgcgat	12720
gtttcgcttg	gtggtcgaat	gggcaggtag	ccggatcaag	cgtatgcagc	cgccgcattg	12780
catcagccat	gatggatact	ttctcggcag	gagcaaggtg	agatgacagg	agatcctgcc	12840
ccggcacttc	gcccaatagc	agccagtccc	ttcccgcttc	agtgacaacg	tcgagcacag	12900
ctgcgcaagg	aacgcccgtc	gtggccagcc	acgatagccg	cgctgcctcg	tcctgcagtt	12960
cattcagggc	accggacagg	tcggtcttga	caaaaagaac	cgggcgcccc	tgcgctgaca	13020
gccggaacac	ggcggcatca	gagcagccga	ttgtctgttg	tgcccagtca	tagccgaata	13080
gcctctccac	ccaagcggcc	ggagaacctg	cgtgcaatcc	atcttgttca	atcatgcgaa	13140
aagatctgga	ttgagagtga	atatgagact	ctaattggat	accgagggga	atttatggaa	13200
cgtcagtgga	gcatttttga	caagaaatat	ttgctagctg	atagtgacct	taggcgactt	13260
ttgaacgcgc	aataatggtt	tctgacgtat	gtgcttagct	cattaaactc	cagaaacccg	13320
cggctgagtg	gctccttcaa	cgttgcggtt	ctgtcagttc	caaacgtaaa	acggcttgtc	13380
ccgcgtcatc	ggcgggggtc	ataacgtgac	tcccttaatt	ctccgctcat	gatcttgatc	13440
ccctgcgcca	tcagatcctt	ggcggcaaga	aagccatcca	gtttactttg	cagggcttcc	13500
caaccttacc	agagggcgcc	ccagctggca	attccggttc	gcttgctgtc	cataaaaccg	13560
cccagtctag	ctatcgccat	gtaagcccac	tgcaagctac	ctgctttctc	tttgcgcttg	13620
cgttttccct	tgtccagata	gcccagtagc	tgacattcat	ccggggtcag	caccgtttct	13680

gcggactggc tttctacgtg ttccgcttcc tttagcagcc cttgcgccct gagtgcttgc 13740 Page 12

ggcagcgtga	agcttgcatg	cctgcaggtc	aacatggtgg	agcacgacac	tctcgtctac	13800
tccaagaata	tcaaagatac	agtctcagaa	gaccagaggg	ctattgagac	ttttcaacaa	13860
agggtaatat	cgggaaacct	cctcggattc	cattgcccag	ctatctgtca	cttcatcgaa	13920
aggacagtag	aaaaggaaga	tggcttctac	aaatgccatc	attgcgataa	aggaaaggct	13980
atcgttcaag	aatgcctcta	ccgacagtgg	tcccaaagat	ggacccccac	ccacgaggaa	14040
catcgtggaa	aaagaagacg	ttccaaccac	gtcttcaaag	caagtggatt	gatgtgataa	14100
cttttcaaca	aagggtaata	tcgggaaacc	tcctcggatt	ccattgccca	gctatctgtc	14160
acttcatcga	aaggacagta	gaaaaggaag	atggcttcta	caaatgccat	cattgcgata	14220
aaggaaaggc	tatcgttcaa	gaatgcctct	accgacagtg	gtcccaaaga	tggaccccca	14280
cccacgagga	acatcgtgga	aaaagaagac	gttccaacca	cgtcttcaaa	gcaagtggat	14340
tgatgtgata	tctccactga	cgtaagggat	gacgcacaat	cccactatcc	ttcgcaagac	14400
ccttcctcta	tataaggaag	ttcatttcat	ttggagagga	cctcga		14446

<210> 5

<211> 1725

<212> DNA

<213> synthetic construct

<400>	5						
	_	cgcagtgtct	gctgcacacg	ccttccctgg	cttccccact	ccttctcctc	60
ctcctct	tggc	tcctgggtgg	aggagtgggg	gctgagggcc	gggaggatgc	agagctgctg	120
gtgacgg	gtgc	gtgggggccg	gctgcggggc	attcgcctga	agacccccgg	gggccctgtc	180
tctgctt	tcc	tgggcatccc	ctttgcggag	ccacccatgg	gaccccgtcg	ctttctgcca	240
ccggago	cca	agcagccttg	gtcaggggtg	gtagacgcta	caaccttcca	gagtgtctgc	300
taccaat	atg	tggacaccct	atacccaggt	tttgagggca	ccgagatgtg	gaaccccaac	360
cgtgago	tga	gcgaggactg	cctgtacctc	aacgtgtgga	caccataccc	ccggcctaca	420
tcccca	accc	ctgtcctcgt	ctggatctat	gggggtggct	tctacagtgg	ggcctcctcc	480
ttggacg	gtgt	acgatggccg	cttcttggta	caggccgaga	ggactgtgct	ggtgtccatg	540
aactaco	ggg	tgggagcctt	tggcttcctg	gccctgccgg	ggagccgaga	ggccccgggc	600
aatgtgg	gtc	tcctggatca	gaggctggcc	ctgcagtggg	tgcaggagaa	cgtggcagcc	660
ttcgggg	gtg	acccgacatc	agtgacgctg	tttggggaga	gcgcgggagc	cgcctcggtg	720
ggcatgo	acc	tgctgtcccc	gcccagccgg	ggcctgttcc	acagggccgt	gctgcagagc	780

	BTI-45								
ggtgcccc	a atggaccctg	ggccacggtg			cagggccacg	840			
cagctggcc	c accttgtggg	ctgtcctcca	ggcggcactg	gtgggaatga	cacagagctg	900			
gtagcctgc	c ttcggacacg	accagcgcag	gtcctggtga	accacgaatg	gcacgtgctg	. 960			
cctcaagaa	a gcgtcttccg	gttctccttc	gtgcctgtgg	tagatggaga	cttcctcagt	1020			
gacacccca	g aggccctcat	caacgcggga	gacttccacg	gcctgcaggt	gctggtgggt	1080			
gtggtgaag	g atgagggctc	gtattttctg	gtttacgggg	ccccaggctt	cagcaaagac	1140			
aacgagtct	c tcatcagccg	ggccgagttc	ctggccgggg	tgcgggtcgg	ggttccccag	1200			
gtaagtgac	c tggcagccga	ggctgtggtc	ctgcattaca	cagactggct	gcatcccgag	1260			
gaeceggea	c geetgaggga	ggecctgage	gatgtggtgg	gegaecacaa	tgtcgtgtgc	1320			
cccgtggcc	c agctggctgg	gcgactggct	gcccagggtg	cccgggtcta	cgcctacgtc	1380			
tttgaacac	c gtgcttccac	gctctcctgg	cccctgtgga	tgggggtgcc	ccacggctac	1440			
gagatcgag	t tcatctttgg	gatcccctg	gacccctctc	gaaactacac	ggcagaggag	1500			
aaatcttc	g cccagcgact	gatgcgatac	tgggccaact	ttgcccgcac	aggggatccc	1560			
aatgagccc	c gagaccccaa	ggccccacaa	tggcccccgt	acacggcggg	ggctcagcag	1620			
tacgttagt	c tggacctgcg	gccgctggag	gtgcggcggg	ggctgcgcgc	ccaggcctgc	1680			
accttctaa	a accorttcct	ccccaaatta	ctcancacca	cctna		1725			